## **ABSTRACT OF THE DISCLOSURE**

A detector array for detecting X-rays has a number of sensor elements that each have a scintillator element, which is sensitive to X-rays, and a photo-electrical transducer optically coupled thereto. An intermediate areas separating adjacent scintillator elements from one another is present between each two adjacent scintillator elements. Scintillator material is present in the intermediate area. In a production method for such a detector array for detecting X-rays, separating channels are introduced into a layer that is composed of scintillator material, which is sensitive to X-rays, without completely separating the layer.